Appendix 1

PEAK DISTRICT NATIONAL PARK AUTHORITY
ENVIRONMENTAL MANAGEMENT ANNUAL PERFORMANCE REPORT 2017/18

1. INTRODUCTION

Good environmental management has been central to how the Authority aims to conduct its operations for some time. A key element of this is that the Authority is transparent and accurate when describing the environmental impacts that are caused as a result of its activities, particularly when making statements concerning achievements and improvements we have made. This report establishes the data which will then be promoted and reported publically.

The scope and data contained within this document reflects that within the Authority's Carbon Management Plan (CMP) 2010 – 2015[1]. This report serves not only as a performance reporting tool but also allows an annual review of progress against the CMP performance objectives in very practical terms. Importantly, this report provides an update on progress on the Authority's target to reduce its carbon emissions.

The Authority's aim was to reduce its carbon emission by 30% against baseline levels by the end of the 2016/17 year. A profile of the emissions if no action were taken (Business As Usual or BAU), anticipated reductions that were recognised within the CMP and the reductions to date are shown in Figure 1, below. As shown, although we are a year behind schedule, we are just one percent under the target with an overall reduction of 29% from baseline.

[1] http://www.peakdistrict.gov.uk/__data/assets/pdf_file/0011/133400/carbon-management-plan-2010-2015.pdf

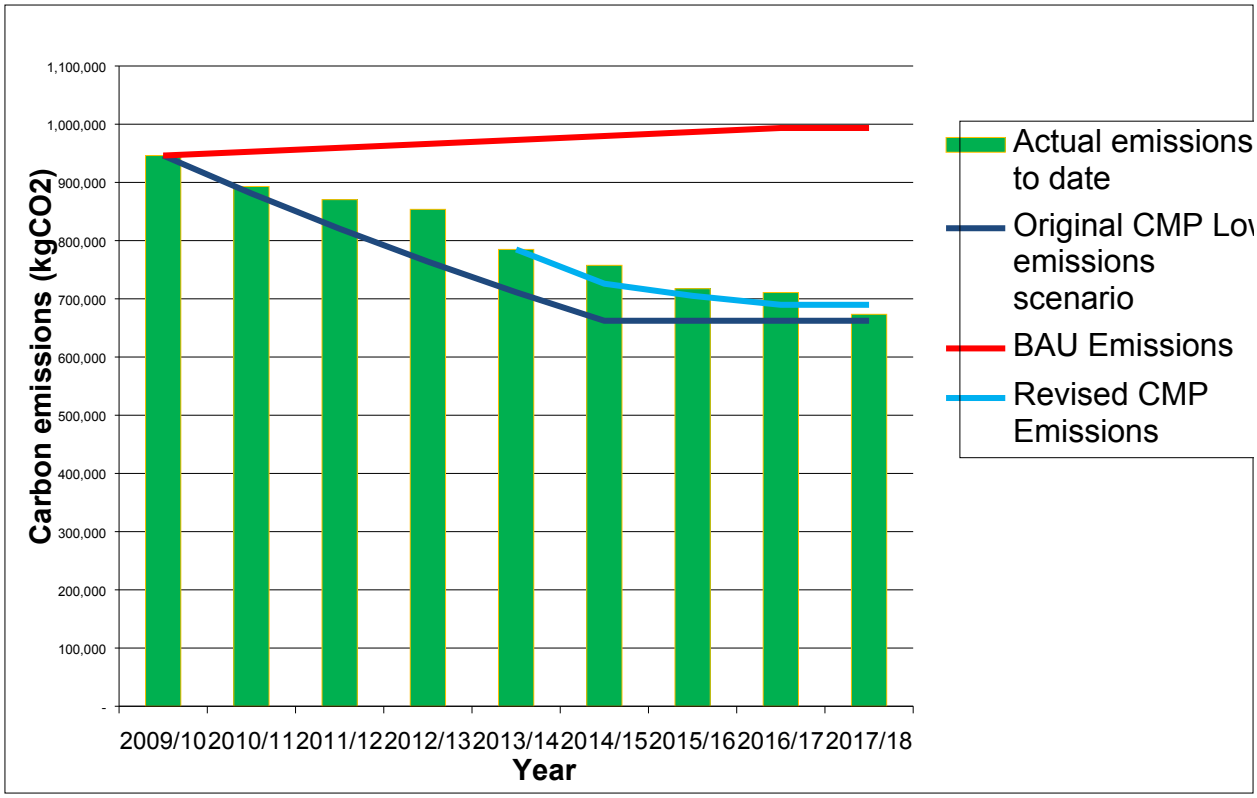


Figure 1. Emissions to date and forward predictions

1.1. Scope and definitions

We must recognise that the actual scope of our environmental impacts is much wider than can ever be effectively monitored. However, by focusing our efforts on areas that can present opportunities for significant, demonstrable, improvements we will progress towards achieving our carbon management vision.

The scope of our performance reporting is now limited to those impacts recognised within our carbon management plan. Emissions are included where they fit into one of the following categories:

- Scope 1: directly resulting from our operations (on-site fuel use, fleet vehicles)
- Scope 2: caused as a result of our operations (the generation of electricity for use on our sites)
- Scope 3: caused as a result of our operations and where we can have some influence but over which we have no direct control (waste disposal, the use of water, business travel in non-authority vehicles and emissions resulting from energy use in Authority tenanted properties)

This is represented in the figure below:

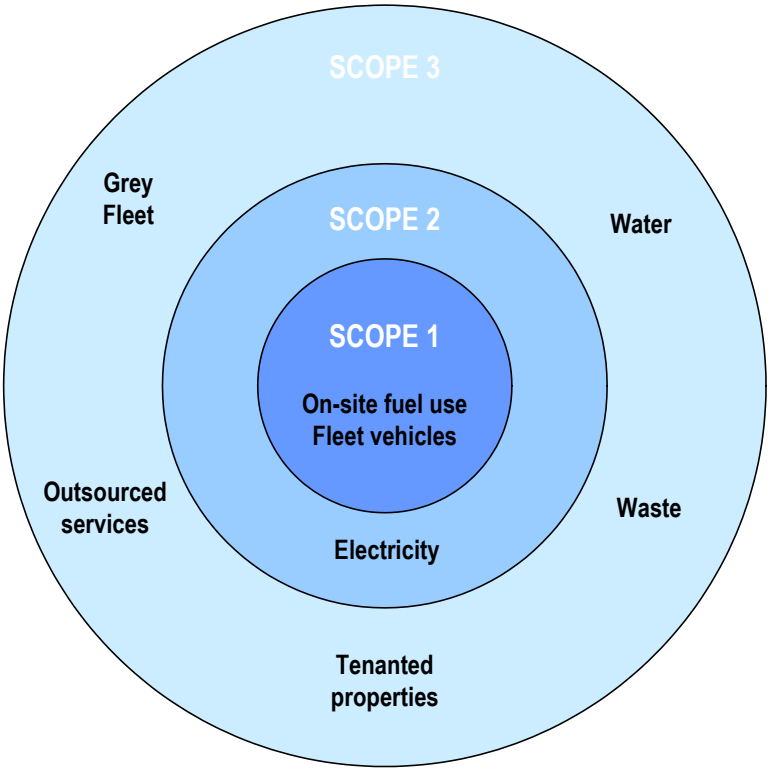


Figure 2. Overview of Authority carbon footprint scope

For more information and explanation of the scope of our reported emissions, please see the CMP.

1.2. Summary of Baseline

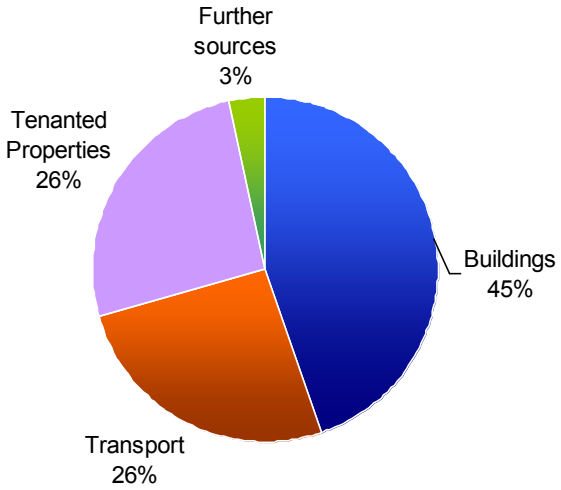
The data against which we now report is based on emissions resulting from our operations during the 2009/10 year as defined within the Carbon Management Plan[2]. Emissions are broadly split into 4 categories:

- Buildings: emissions resulting from electricity and gas consumption
- Transport: emissions resulting from all vehicle use including fleet vehicles, pool cars, private cars used for Authority business, public transport and air travel.
- Tenanted properties: emissions resulting from energy use within Authority owned tenanted properties
- Further sources: emissions resulting from the disposal of waste and the use of water at Authority sites.

An overview of the baseline (2009/10) emissions is given below.

Table 1. Data for 2009/10 baseline year

	CO_2 (tonnes)	**%**
Buildings	427	45%
Transport	246	26%
Tenanted Properties	246	26%
Further sources	27	3%
	946	**100%**



[2] The baseline emissions have been amended since the publication of the carbon management plan to reflect the availability of more accurate base data.

2. PERFORMANCE REPORT

Our overall performance has shown a significant level of improvement over the 8 years since the baseline was established. Our corporate objectives refer to the overall target within the CMP of a 30% reduction over the 7 year period of the plan, which ended in the previous reporting period.

Total emissions have fallen from **946** tonnes CO_2 in the 2009/10 baseline year to **673** in this reporting period, representing a **28.8%** reduction against baseline and **32%** against the expected levels under a business as usual scenario. This accounts for a total reduction in emissions of 273 tonnes from the baseline year to 2017/18. We have also achieved a reduction of 5% against the 2016/17 reporting period representing a further reduction in emissions of 37 tonnes.

A summary of the sources of emissions each year is shown in Figure 2, below:

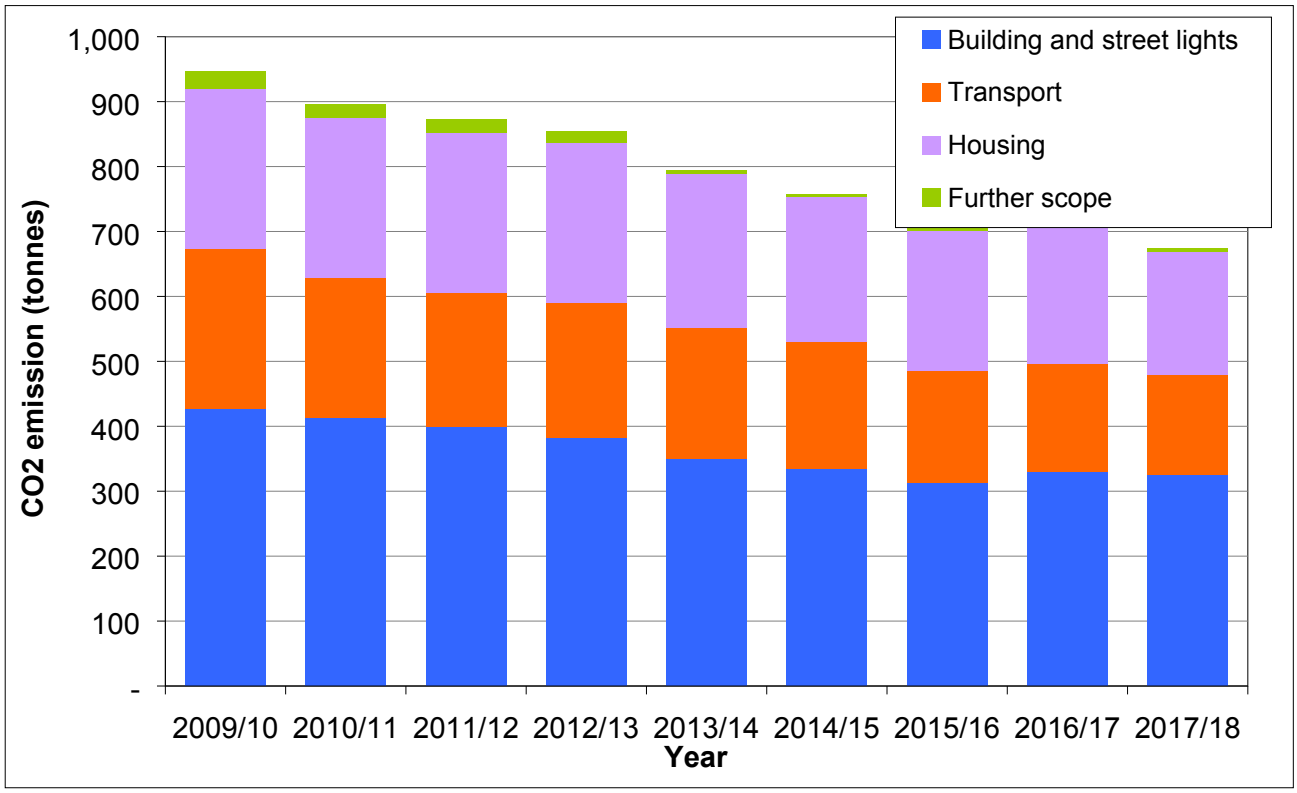


Figure 3. Graph showing total CO_2 emissions from all sources.

A more detailed breakdown of the sources of the emissions is given in the table below:

Category		tCO2 2009/10	tCO2 2010/11	tCO2 2011/12	tCO2 2012/13	tCO2 2012/13	tCO2 2014/15	tCO2 2015/16	tCO2 2016/17	tCO2 2016/17
Buildings and Street Lights	HQ	193	184	158	153	120	109	101	96	92
	Operational Bases	112	114	135	115	130	125	106	138	132
	Hostels	15	12	12	15	17	15	19	17	12
	Public Toilets	9	9	9	9	7	9	9	7	8
	Visitor/ Cycle Hire Centres	97	94	86	90	77	76	78	71	80
Transport	Fleet	183	159	161	157	149	139	124	119	110
	Business	63	56	45	52	53	57	48	48	45
Further Sources	Waste	18	15	16	13	1	1	5	1	1
	Water	8	5	5	3	3	3	4	4	4
Housing	Tenanted properties	246	246	246	246	238	224	224	209	189
		946	**895**	**873**	**854**	**794**	**758**	**717**	**711**	**673**

A description of each key area of impact and further analysis of the data is provided in sections 2.1 to 2.3 below.

2.1. Buildings

Emissions from Authority buildings arise as a result of the consumption of energy in the form of fossil fuels and electricity. This category is limited to operational properties and does not include tenanted properties which are dealt with in the housing section below. Overall, emissions resulting from buildings show positive progress with a **23.9%** reduction from baseline levels. A summary of the key sources of emissions each year is provided in figure 4 below:

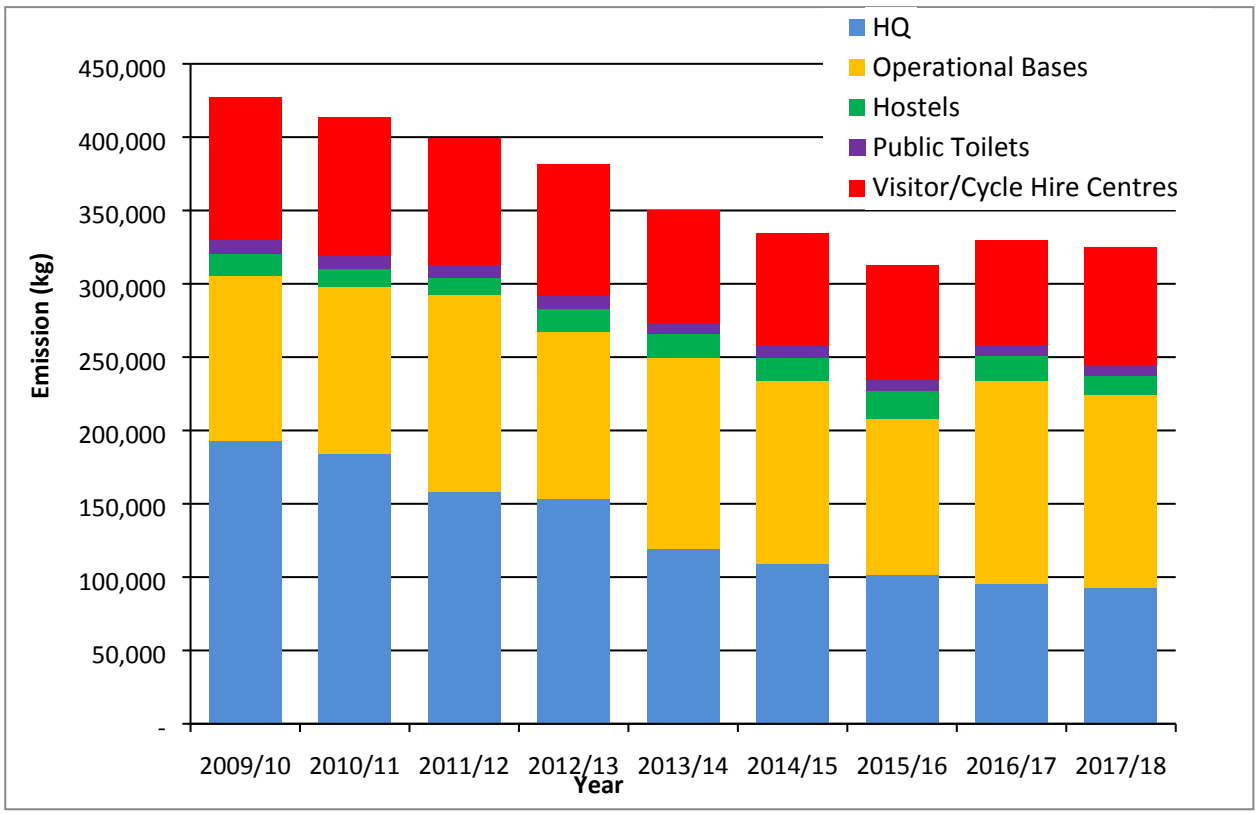


Figure 4. Graph showing building related CO_2 emissions

Building energy use has decreased over the reporting period and shows a 4 tonne emissions reduction over the year. However, emissions continue to be at higher levels than over previous years, particularly 2015/16 when they were at their lowest. As was the case in the previous reporting period, this is largely thought to be due to increases within operational bases and particularly the Moorland Centre where much greater staff numbers are present and therefore greater amounts of energy are used.

Building energy has reduced across all other categories of properties, most significantly at Aldern House where emissions are now over 100tonnes per annum lower than the baseline year.

2.2. Transport

Transport continues to be the area where we have achieved the greatest reductions in emissions. The overall reduction in emissions against baseline in the 2017/18 year stands at **37%** with a **7.5%** reduction over last year's reporting period.

The key sources of emissions in this area are shown in figure 5 below.

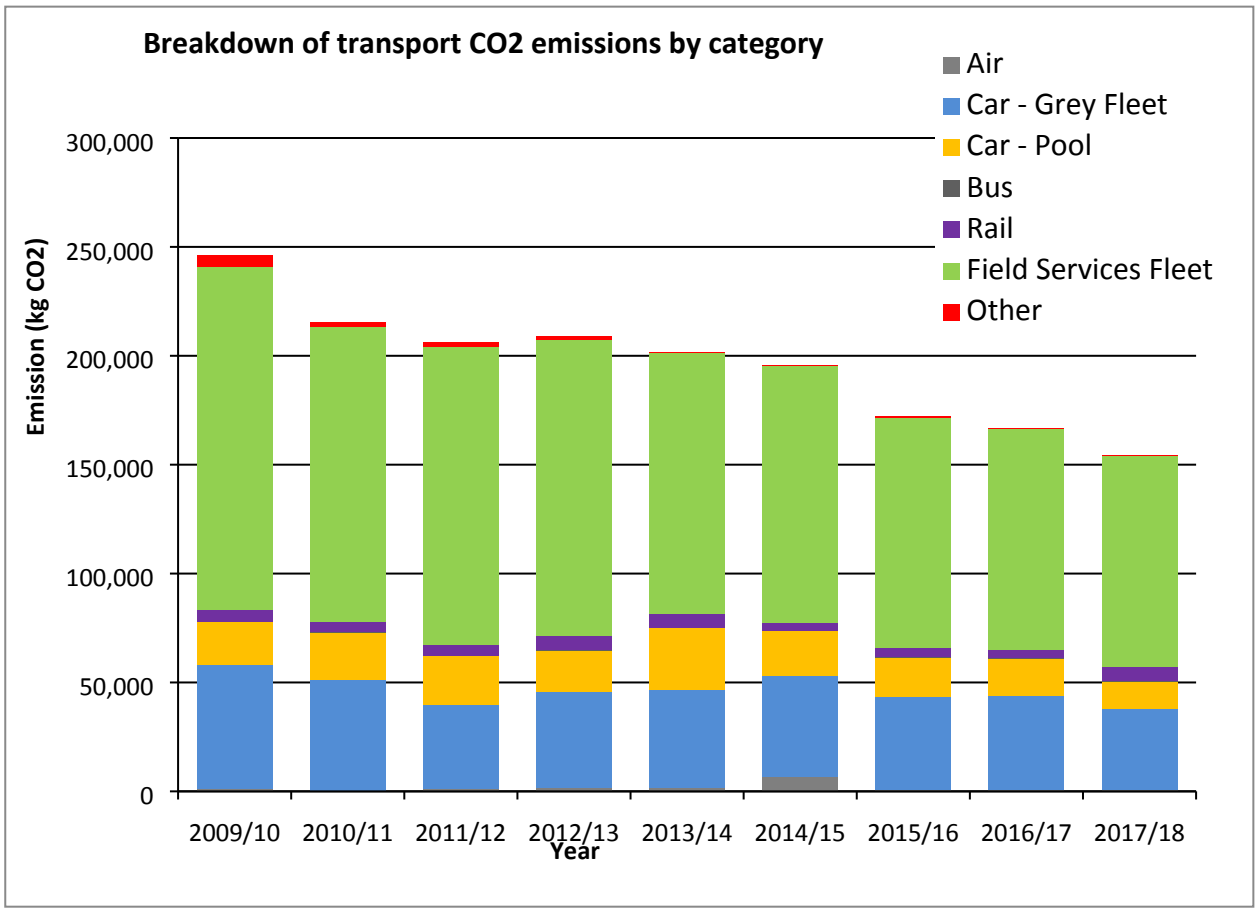


Figure 5. Graph showing travel related CO_2 emissions

There has been a small decrease in 'field services' fleet emissions over the last year but the most significant change has been in the emissions resulting from pool car use which have reduced by 5 tonnes. This is largely down to the new pool fleet which is now more efficient.

2.3. Housing and further sources

Emissions resulting from housing (Authority tenanted properties) are calculated using benchmarks provided by the Carbon Trust. The number of properties and their method of heating has largely remained constant with the exception of improvements made to a number of properties resulting in fossil fuel systems (oil-fired) being replaced with renewable energy systems. In this reporting period, there has been a slight decrease in emissions due to another property (Steps Farm) being converted from solid fuel to a ground source heat pump system. The overall reduction in housing related emissions now stands at 23% across what are generally considered to be 'hard to treat' properties.

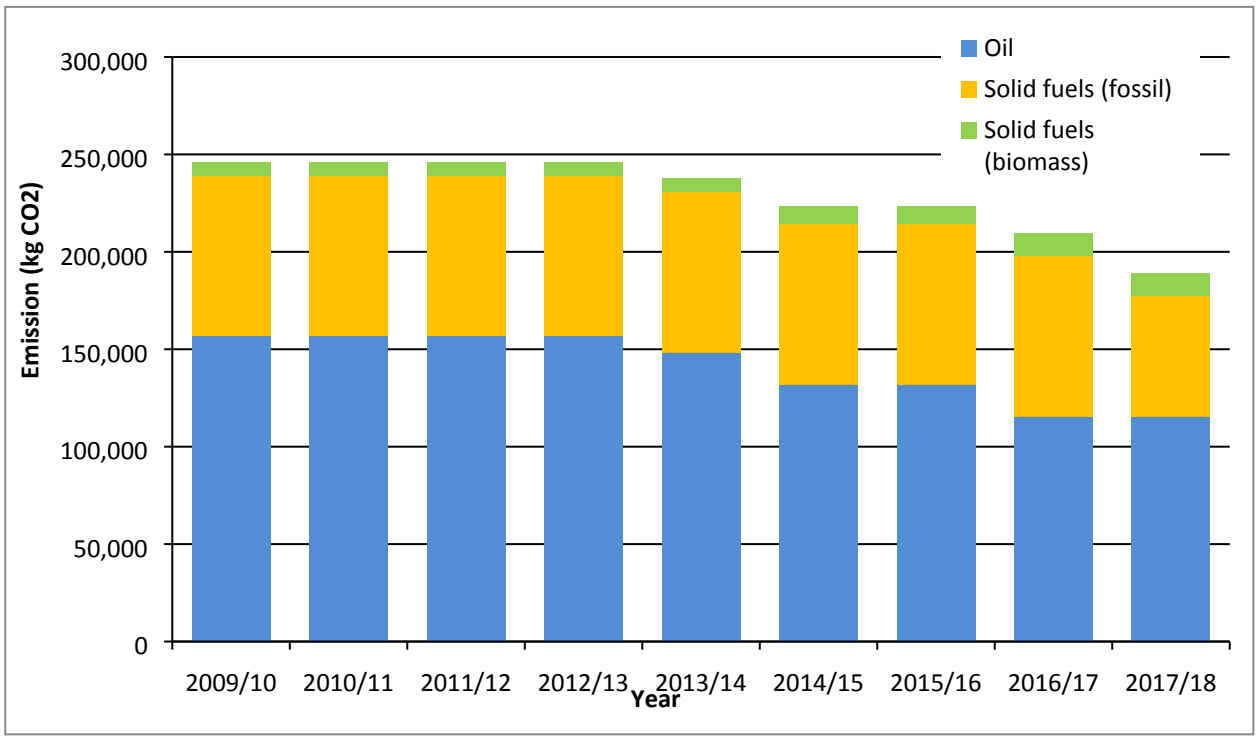


Figure 6. Emissions resulting from Authority tenanted properties

Also included within this category are emissions resulting from 'further sources' which includes water use and the production of waste. Waste that is recycled is considered to avoid the production of emissions and therefore offsets some of the emissions from the waste that is sent to landfill. The Authority has achieved a significant increase in the amount of waste collected for recycling over previous years which has offset the emissions created from the disposal of waste to landfill. Emissions from these sources remain largely static. A breakdown of the emissions from these sources is provided in figure 7 below:

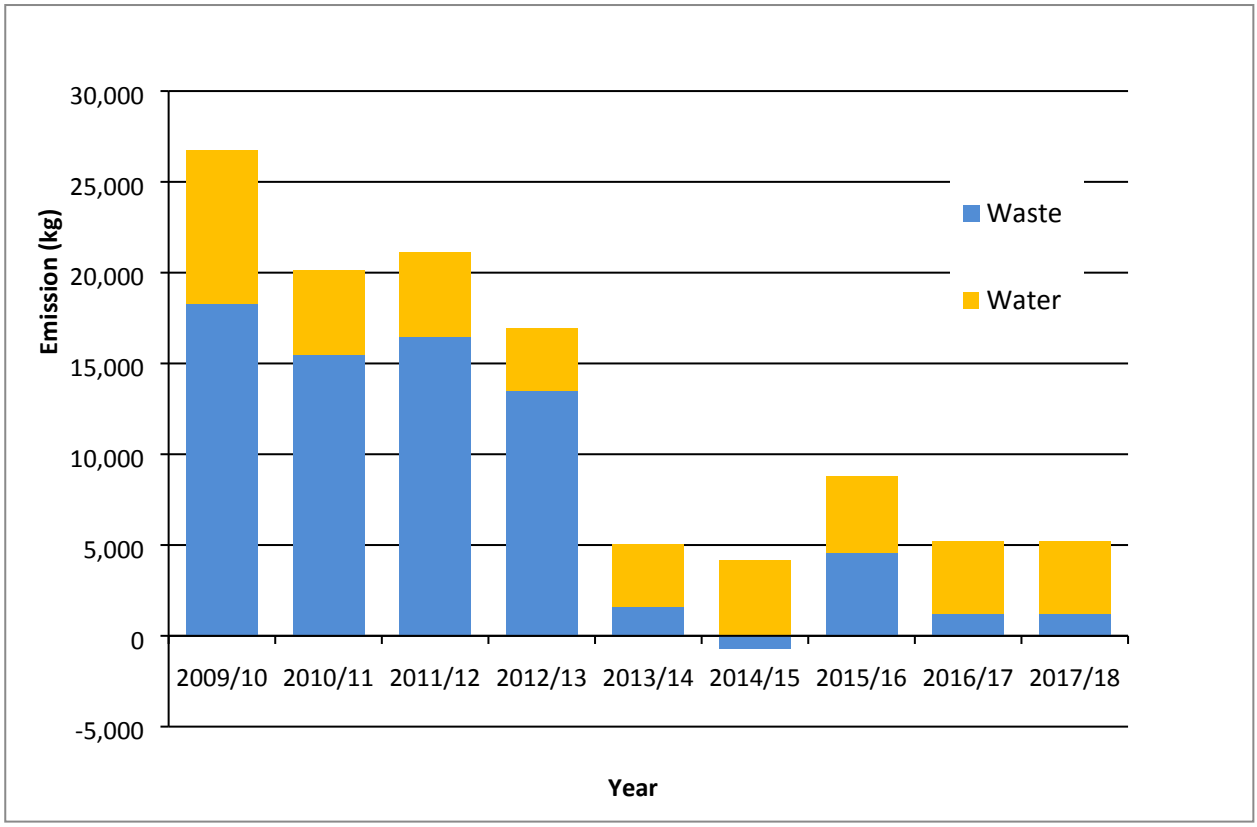


Figure 7. Emissions resulting from water use and waste production

2.4. Financial performance

An important element of the Authority's Carbon Management Plan is the savings that will be made from the measures within it. A total of £161,070 per annum savings were recognised within the revised plan.

'Actual costs' have been calculated using the data within this report and all available information concerning energy and fuel unit prices; this has been compared against actual costs from the Authority financial system and is thought to be broadly accurate. Target costs are the predicted costs using target figures from the CMP and energy and fuel unit prices as above, the Business As Usual (BAU) cost predictions use Department for Energy and Climate Change predictions for energy price and fossil fuel retail price increases[3] and assumptions made by the Carbon Trust relating to waste and water price increases. BAU figures were updated in 2015/16 with the most recent figures hence the slightly different cost predictions in figure 8 below to those within the CMP.

It is estimated that emissions reductions measures have achieved actual savings of approximately £149,000 per annum to date against the business as usual cost scenario. The shortfall against the planned savings within the Carbon Management Plan reflects both slightly lower than anticipated emissions reductions and energy costs increases being less than predicted. Therefore, costs have not risen as much as anticipated, so savings have also been smaller.

[3] https://www.gov.uk/government/collections/energy-and-emissions-projections

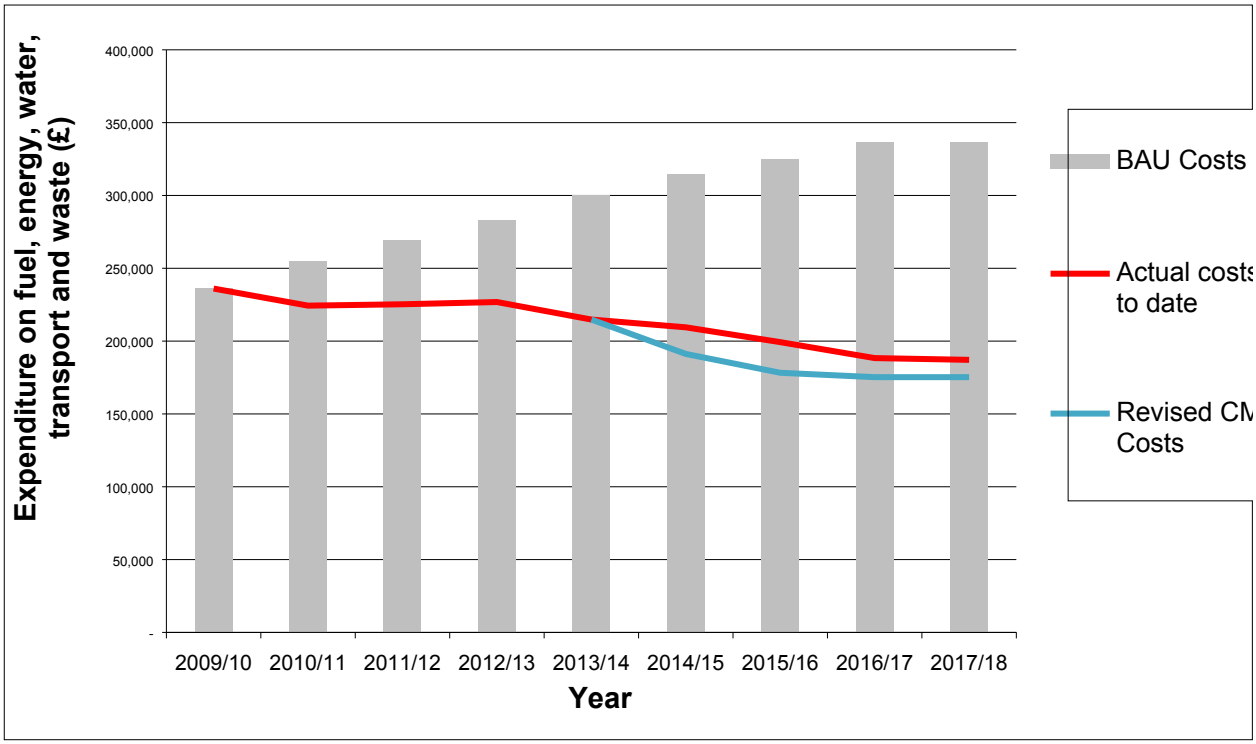


Figure 8. Comparison of Actual, Target and BAU costs for expenditure related to the CMP scope.

The Authority has achieved savings broadly in line with those expected within the original CMP.

Financial savings form an important element of this area of work and robust business cases will continue to be provided to support the implementation of new projects. All business cases demonstrate how the investments made will be recovered over the lifetime of the installation/project through cost reductions and tariff payments.